

REMARKS

1. Claims 1, 2 and 6 are canceled, claims 3, 7 and 11 are amended and new claims 14-16 are added in the present response. Claims 3-5 and 7-16 are presently in the case.

Generally, the present invention is directed to supporting network-initiated (claims 7-10) or mobile-initiated (claims 3-5 and 11-16) reconnect attempts after service interruption is encountered by a mobile unit, yielding a suspended call session, and whereby the call session was controlled by a first MSC and the mobile unit has roamed to an area controlled by a second MSC during the service interruption. The mobile unit initiates a reconnect by sending a mobile-originated reconnect (MORC) message into the network. The MORC message is recognized as a request for reconnection to a suspended call session. However, in the case where the mobile unit has roamed from a first MSC to second MSC during the service interruption, the second MSC will not have a record of the suspended session. The second MSC will attempt, unsuccessfully, to search for the suspended call session based on the MORC message. When the second MSC does not find the suspended call session, it sends a suspended call handoff request to one or more neighboring MSCs (e.g., including the first MSC). The first MSC, having controlled the call when it was interrupted, will have a record of the suspended session and will identify the suspended session based on the suspended call handoff request. Thereafter, the first MSC sends the second MSC a suspended call handoff acknowledgement including information associated with the suspended call session and establishes a bearer channel to the second MSC. Upon receiving the suspended call handoff acknowledgement, the second MSC establishes a bearer channel to the mobile unit thereby reconnecting the mobile unit to the (formerly suspended) call session.

Claim 3, which is drafted from the perspective of the first MSC, has been amended to more clearly recite that the first MSC queries a database for the suspended call session responsive to receiving a suspended call handoff request from the second MSC. Claim 11 has been amended (and new claim 14 added) from the perspective of the second MSC, to recite that the second MSC maintains a database of session information associated with a plurality of suspended calls; queries the database for session information corresponding to the mobile unit

identifier (claim 11) or session identifier (claim 14); and if session information corresponding to the mobile unit identifier is not found, sends a suspended call handoff request to the first MSC.

Claim 7, formerly depending from claim 6, has been redrafted in independent form. It is noted, amended claim 7 does not incorporate all the limitations of base claim 6 but is nevertheless believed to be in condition for allowance.

2. Claims 1 and 2 were rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US 6,343,216). Claims 1 and 2 have been canceled.

3. Claims 6, 11 and 12 were rejected under 35 U.S.C. 102(b) as being anticipated by Lahtinen et al. (US 6,169,900). Claim 6 has been canceled and claim 11 amended in the present response. To the extent the rejection based on Lahtinen is maintained against the present claims 11 and 12, this rejection is respectfully traversed.

As noted above, claim 11 has been amended to recite from the perspective of the second MSC, that the second MSC maintains a database of session information associated with a plurality of suspended calls; queries the database for session information corresponding to the mobile unit identifier; and if session information corresponding to the mobile unit identifier is not found, sends a suspended call handoff request to the first MSC. Claim 12 depends from claim 11 and recites that the first MSC, responsive to receiving the suspended call handoff request from the second MSC: retrieves session information associated with the interrupted call of the mobile unit; and sends a suspended call handoff acknowledgement to the second MSC including at least a portion of the session information.

Lahtinen describes a system whereby a mobile unit that encounters a service interruption while roaming from a first MSC ("MSC A") to a second MSC ("MSC B") can initiate a reconnection by sending a "start" message to MSC B. The start message includes a mobile station ID and a Last Location Area Identifier ("Last_LAI"). Responsive to receiving the start message, MSC B learns on the basis of the Last LAI which MSC controlled the now-suspended call. Thus, in the case where MSC B is the second MSC, MSC B learns that the first MSC ("MSC A") controlled the now-suspended call. Thereafter, MSC B sends a Prepare Handover

message to MSC A to facilitate reconnection of the call. It is noted, Lahtinen does not teach or suggest that the second MSC maintains a database of session information associated with suspended calls or queries the database for session information. Indeed, Lahtinen suggests that MSC B does not even attempt to search for session information, but rather searches for the first MSC based on the Last_LAI. Thus, even if MSC B were to maintain a database of session information, which applicant does not concede, it sends the Prepare Handover message to MSC A without ever having consulted such a database.

Amended claim 11 distinguishes over Lahtinen for at least the reason that it recites a second MSC (i.e., an MSC that did not control the initial call) maintaining a database of session information, querying the database for session information corresponding to the mobile unit identifier; and if session information corresponding to the mobile unit identifier is not found, sending a suspended call handoff request to the first MSC. Claim 12 distinguishes over Lahtinen for at least the reason that it depends from claim 11.

4. Claims 3-5 were rejected under 35 U.S.C. 102(e) as being anticipated by Nikkelen (US 2003/0207688). Claim 3 has been amended in the present response. To the extent the rejection based on Nikkelen is maintained against the present claims 3-5, this rejection is respectfully traversed.

Claim 3 is drafted from the perspective of the first MSC (i.e., the MSC that controlled the initial call) and recites that the first MSC queries a database for the suspended call session responsive to receiving a suspended call handoff request from the second MSC. The first MSC, having controlled the call when it was interrupted, will have a record of the suspended session and will identify the suspended session based on the suspended call handoff request. Thereafter, the first MSC sends the second MSC a suspended call handoff acknowledgement including information associated with the suspended call session and establishes a bearer channel to the second MSC so as to facilitate reconnecting the mobile unit to the suspended call session.

Nikkelen is concerned with controlling inter-system handovers, for example, between GSM and WCDMA-based systems. The goal of inter-system handovers (or for that matter, intra-system handovers) is to achieve a transition from one MSC to a second MSC as the mobile

station roams during an active call without interruption of service to a mobile station. As such, Nikkelen does not contemplate service interruptions or reconnect attempts after service interruptions. Consequently, Nikkelen does not disclose or suggest a first MSC receiving a suspended call handoff request, querying a database to identify a suspended call session or sending a suspended call handoff acknowledgement including information associated with the suspended call session. The Office Action suggests these steps may be found in sections 28-30 of the Nikkelen reference. Respectfully, however, sections 28-30 refer to transitioning from a first MSC ("anchor node") to a second MSC ("non-anchor node") during an active call. Nikkelen does not disclose or suggest that the call is suspended, that the anchor node receives a suspended call handoff request from the non-anchor node or that it queries a database for record of a suspended call, as claimed. Accordingly, claim 3 distinguishes over Nikkelen. Claims 4-5 distinguish over Nikkelen for at least the reason that they depend from claim 3.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lahtinen in view of Vo (US 6,795,444). This rejection is respectfully traversed.

Vo was applied to supply the limitation missing from Lahtinen of using a wait timer to define a waiting period to allow reconnection. Vo does not teach, nor was it relied upon for teaching a second MSC maintaining a database of session information, querying the database for session information, and so forth as claimed in base claim 11. Accordingly, even if Vo could be combined with Lahtinen, it does not repair the deficiencies of Lahtinen discussed in relation to claim 11; and therefore claim 13 distinguishes over the combination of Lahtinen and Vo because it depends from claim 11.

6. Claims 7-10 were objected to as being dependent on a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 7 has been redrafted in independent form. Amended claim 7 does not incorporate all the limitations of base claim 6 but is nevertheless believed to be in condition for allowance. Claims 8-10 are believed to be in condition for allowance because they depend from amended claim 7.

7. New claims 14-16 have been added in the present response.

New claim 14 is similar to amended claim 11, in that it recites a second MSC (i.e., an MSC that did not control the initial call) maintaining a database of session information, querying the database for session information responsive to receiving a MORC message; and if session information is not found, sending a suspended call handoff request to the first MSC. The difference is that in claim 14, the query is based on a session identifier contained in the MORC message, whereas in claim 11, the query is based on a mobile unit identifier. To the extent Lahtinen may be applied against claim 14, claim 14 distinguishes over Lahtinen for at least the reason that it recites a second MSC maintaining a database of session information, querying the database for session information corresponding to the session identifier; and if session information corresponding to the session identifier is not found, sending a suspended call handoff request to the first MSC. Claims 12 distinguishes over Lahtinen for at least the reason that it depends from claim 11.

New claims 15-16 depend from claim 14 but are otherwise identical to claims 12 and 13. Claims 15-16 distinguish over Lahtinen for at least the reason that they depend from claim 14.

8. In view of the above amendments and remarks, favorable reconsideration of this application and a notice of allowance of claims 3-5 and 7-16 is respectfully requested. The Commissioner is authorized to charge any additional fees that may be required, or credit any overpayment, to Lucent Technologies Deposit Account No. 12-2325.

Respectfully submitted,

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